

Summary of EPA Inspections and Sampling done in the Central Sands Area

In October of 2017, EPA sampled 13 private wells and four surface water locations in northeast Juneau County, Wisconsin (Table 1 and Table 2). The private well sampling had one site at 10.1 mg/L and five private wells had results >20 mg/L of nitrate-nitrite which is over the drinking water standard of 10 mg/L. Potential sources near and surrounding the private wells are land application fields and the production area of CSD. EPA has contacted all 13 private well homeowners by phone, but is in the process of providing the laboratory data to the 10 people who have not received their laboratory results either through e-mail or by mailing them a hard copy.

From April 30- May 3, 2018 EPA sampled 5 private wells (three were repeated homes from the October 2017 sampling in Table 3). The five private wells samples had results between 21.9 – 40.4 mg/L of nitrate-nitrite which is over the drinking water standard of 10.0 mg/L. EPA has provided the five people with their laboratory results through e-mail or by mailing them a hard copy. EPA also conducted geo-probe sampling at 41 locations sampling along public road right-of-way. At each location, EPA collected samples at two separate depths for a total of 82 samples taken along public road right-of-way in northeast Juneau County.

In total, EPA collected samples from 15 private wells if you combine the October 2017 and May 2018 sampling. Of the 15 private wells sampled 1 of the samples was at 10.0 mg/L and the other 7 were over 20 mg/L. Three of the eight do not have filtration systems (1 is getting water from a neighbor), two had some sort of filtration system, but one of the people still tested at 10.1 mg/L for nitrate-nitrite with a filtration system, three are unknown whether they have filtration system or getting water from an alternate source (Table 4).

EPA is currently working on a website that will have links to all the analyses performed at the 82 sampling sites and some of the drinking water wells. The maps include the geo-probe locations and specific maps of the parameters analyzed. The website will be made available to the public.

Attachments:

Table 1: Results of private well data collected on October 23-25, 2017

Table 2: Results of surface water data sampled October 25, 2017

Table 3: Results of private wells sampled on May 3, 2018

Table 4: Results of private wells sampled in October 2017 and May 2018 over 10 mg/L

Table 1: Results of private well data sampled on October 23-25, 2017:

Facility ID	Date of Sampling	Well Depth	Sample Location	County	State	Total Phosphorus (mg/L)	Ammonia-Nitrogen (mg/L)	TKN (mg/L)	Nitrate-Nitrite (mg/L)	Total Coliform	<i>E.coli</i> (MPN/100mL)
S01	October 23, 2017	42 feet	Basement Bypass	Juneau	Wisconsin	0.04	ND*	0.23	37.8	NA	<1
S02	October 24, 2017	60 feet	Kitchen sink	Juneau	Wisconsin	ND*	ND*	0.38	35.2	<1	<1
S03	October 24, 2017	30-35 feet	Outside spigot	Juneau	Wisconsin	ND*	ND*	0.22	5.50	<1	<1
S04	October 24, 2017	30-35 feet	Outside spigot	Juneau	Wisconsin	ND*	ND*	0.2	0.41	<1	<1
S05	October 24, 2017	30 feet	Outside spigot	Juneau	Wisconsin	0.04	ND*	ND	0.10	<1	<1
S06	October 24, 2017	48 feet	Kitchen sink	Juneau	Wisconsin	ND*	ND*	0.25	10.1	<1	<1
S07	October 24, 2017	22 feet	Kitchen Sink	Juneau	Wisconsin	ND*	ND*	0.22	8.59	<1	<1
S08	October 24, 2017	42 feet	Outside spigot	Juneau	Wisconsin	0.05	ND*	ND	4.83	<1	<1
S12	October 24, 2017	80-90 feet	Outside spigot	Juneau	Wisconsin	ND*	ND*	ND	0.23	<1	<1
S14	October 24, 2017	50 feet	Outside spigot	Juneau	Wisconsin	ND*	ND*	0.26	28.2	<1	<1
S15	October 24, 2017	40 feet	Kitchen sink	Juneau	Wisconsin	ND*	ND*	0.20	5.44	<1	<1
S20	October 24, 2017	50 feet	Basement	Juneau	Wisconsin	0.04	ND*	0.25	23.9	1	1
S22	October 25, 2017	Not sure	Kitchen Sink	Juneau	Wisconsin	0.04	ND*	0.28	28.4	91	<1

*ND = Non-detect

Table 2: Results of surface water data sampled October 25, 2017:

Facility ID	Location of surface water	Date of Surface water	County	State	Nitrate-Nitrite (mg/L)	Total Phosphorus (mg/L)	Ammonia-Nitrogen (mg/L)	TKN (mg/L)	<i>E.coli</i> (MPN/100mL)
S16	S. Petenwell Lake	10/25/2017	Juneau	Wisconsin	0.49	0.09	0.26	1.33	1
S17	N. Petenwell Lake	10/25/2017	Juneau	Wisconsin	0.66	0.11	ND*	1.01	15
S18	Spud Creek	10/25/2017	Juneau	Wisconsin	4.29	ND*	ND*	0.36	20
S19	Cranberry Creek	10/25/2017	Juneau	Wisconsin	0.34	0.45	ND*	0.67	74

*ND = Non-detect

Table 3: Results of private wells sampled on May 3, 2018:

Sample ID	Date	Depth	Location	County	State	Ammonia-Nitrogen (mg/L)	Nitrate-Nitrite (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Chloride (mg/L)	<i>E. coli</i> (MPN/100mL)
S01	May 3, 2018	42 feet	Basement bypass	Juneau	Wisconsin	0.0150-0.0480	34.4	34.4	ND*	32.6	<1
S02	May 3, 2018	60 feet	Kitchen sink	Juneau	Wisconsin	ND	34.3	34.3	ND*	49.6	<1
S03	May 3, 2018	Need to contact	Kitchen sink	Juneau	Wisconsin	ND	21.9	21.9	ND*	24.7	<1
S04	May 3, 2018	Need to contact	Basement bypass	Juneau	Wisconsin	ND	40.4	40.3	ND*	39.7	<1
S05	May 3, 2018	50 feet	Outside spigot	Juneau	Wisconsin	ND	29.1	29.1	ND*	36.8	<1

Table 4: Results of private wells over 10 mg/L:

Sample ID	Date	Depth	Location	County	State	Ammonia-Nitrogen (mg/L)	Nitrate-Nitrite (mg/L)	Alternative water Source
S01	May 3, 2018	42 feet	Basement bypass	Juneau	Wisconsin	0.0150-0.0480	34.4	No Filter System
S02	May 3, 2018	60 feet	Kitchen sink	Juneau	Wisconsin	ND	34.3	Neighbor's water
S03	May 3, 2018	Need to contact	Kitchen sink	Juneau	Wisconsin	ND	21.9	No alternate source
S04	May 3, 2018	Need to contact	Basement bypass	Juneau	Wisconsin	ND	40.4	Filter system
S14	May 3, 2018	50 feet	Outside spigot	Juneau	Wisconsin	ND	29.1	Not sure
S22	October 2017	Not sure	Basement	Juneau	Wisconsin	NA	28.4	Not sure
S20	October 2017	Not sure	Basement	Juneau	Wisconsin	NA	23.9	Not sure
S06	October 2017	Not sure	Kitchen	Juneau	Wisconsin	Na	10.1	Filter system under sink